

Remarks

Favorable reconsideration of this application is requested in view of the following remarks. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The Office Action dated January 31, 2003, indicated that the listing of references in the specification is not a proper information disclosure statement; the specification is objected to for informalities; and claims 1-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Friguchi* (U.S. Patent No. 6,395,563).

With respect to the objections to the specification, Applicant has amended the specification by adding the missing patent application serial numbers.

Applicant respectfully traverses the §103 rejection as the Office Action fails to present a *prima facie* case of obviousness. The Office Action fails to present and even assert complete correspondence between the '563 reference and the claimed invention.

For example, with respect to the rejection of claims 1 and 14, there is no assertion of correspondence or attempted alignment of the claimed limitations regarding a semiconductor analysis arrangement adapted to "use light from the light source to perturb the die" to the '563 reference.

~~The '563 reference fails to teach or suggest these and other limitations of the~~ claimed invention. The '563 reference is directed to a method of manufacturing a semiconductor including optical evaluation of film thickness during the manufacturing process. The light sources of the '563 reference are used for light reflectance which is measured to determine film thickness. The '563 reference does not suggest any of the claimed limitations regarding perturbing the die and evaluating its response.

With respect to the rejection of claims 11 and 12, the Office Action erroneously cites a detector 9 in Figure 1 of the '563 reference as corresponding to the claimed detection arrangement which is "adapted to detect a response from the die to the light." As discussed above, the '563 reference does not teach perturbing a die and evaluating its response. Further, the detector 9 of Figure 1 merely measures the intensity of reflected light and not a die's functional response to light.

Moreover, Applicant submits that the Office Action fails to present evidence of motivation in support of the modification of the cited '563 reference. Evidence has not been provided of any teaching or suggestion for using the '563 reference in connection with using light to perturb a semiconductor die, as claimed in the instant invention, or for modifying the reference to achieve the claimed limitations. Recent case law indicates that evidence of motivation must be specifically identified and shown by some objective teaching in the prior art leading to the modification. "Our court has provided [that the] motivation to combine may be found explicitly or implicitly: 1) in the *prior art references* themselves; 2) in the knowledge of those of ordinary skill in the art that certain *references*, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, 'leading inventors to look to *references* relating to possible solutions to that problem.'" Ruiz v. A.B. Chance Co., 234 F.3d 654, 57 USPQ2d 1161 (Fed. Cir. 2000). The Office Action fails to indicate evidence of why one skilled in the art would be led to modify the '563 reference, and does not provide any evidence of factual teachings, suggestions or incentives from the prior art that lead to the proposed modification.

The Examiner alleges that it would have been obvious to modify the '563 reference in several ways including, for example, to detect the semiconductor die because such modification involves only routine skill in the art. As discussed above, the '563 reference is directed to a different art, semiconductor manufacture, from that of the claimed invention, and the Examiner has failed to show how one skilled in the art of the '563 reference would be motivated to modify the '563 teachings to include perturbing a die and evaluating its response.

Further, the asserted modification of the '563 reference to include a perturbation device would frustrate the purpose of the primary '563 reference. The '563 reference is directed to manufacturing functional semiconductor devices with a focus on property control. The '563 teachings are concerned with forming a high-quality gate insulating film as a part of the die manufacturing process. Introducing a perturbation device into the closely evaluated film development process would frustrate the property control measures in place to ensure that a high-quality film is formed. To suggest that one skilled in the art would modify the '563 reference in this manner is untenable and improper. In re Gordon,

733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (A §103 rejection cannot be maintained when the asserted modification undermines the purpose or operation of the main reference.).

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is encouraged to contact the undersigned at (651) 686-6633.

Respectfully submitted,

CRAWFORD MAUNU PLLC
1270 Northland Drive, Suite 390
St. Paul, MN 55120
651/686-6633

Dated: April 21, 2003

By: 

Robert J. Crawford
Reg. No. 32,122

FAX RECEIVED
APR 21 2003
TECHNOLOGY CENTER 2800